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PTO/SB/21 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	09/720,953	
	Filing Date	February 13, 2001	
	First Named Inventor	Kiyotaka Tsukada	
	Group Art Unit	2827	
	Examiner Name	J. Norris	
Total Number of Pages in This Submission		Attorney Docket Number	232.001

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input checked="" type="checkbox"/> Fee Attached	<input type="checkbox"/> Formal Drawings	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input checked="" type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Return Postcard
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s)	
<input type="checkbox"/> Response to Notification of Missing Requirements Under 35 USC 371	Remarks	
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	James F. Boyle, Reg. No. 33,653 Boyle, Fredrickson, Newholm, Stein & Gratz, S.C.
Signature	<i>J. F. Boyle</i>
Date	Nov. 1, 2002

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on this date: <u>Nov. 1, 2002</u>			
Type or printed name	Robyn O'Neill		
Signature	<i>Robyn O'Neill</i>	Date	11/1/02

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PTO/US 17 (11-01)  
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# FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

☐ Applicant Claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)**110.00**

## Complete if Known

Application Number 09/720,953  
 Filing Date February 13, 2001  
 First Named Inventor Kiyotaka Tsukada  
 Examiner Name J. Norris  
 Group Art Unit 2827  
 Attorney Docket No. 232.001

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## METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account

Deposit Account Number 50-1170  
 Deposit Account Name Boyle, Fredrickson, Newholm, Stein & Gratz S.C.

The Commissioner is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
101	740	201	370	Utility filing fee	
106	330	206	165	Design filing fee	
107	510	207	255	Plant filing fee	
108	740	208	370	Reissue filing fee	
114	160	214	80	Provisional filing fee	

SUBTOTAL (1) (\$)**0**

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
103	18	203	9	Claims in excess of 20	
102	84	202	42	Independent claims in excess of 3	
104	280	204	140	Multiple dependent claim, if not paid	
109	84	209	42	**Reissue independent claims over original patent	
110	18	210	9	**Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$)**0**

\*\* or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee	Fee	Fee	Fee		
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for <i>ex parte</i> reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	110
116	400	216	200	Extension for reply within second month	
117	920	217	460	Extension for reply within third month	
118	1,440	218	720	Extension for reply within fourth month	
128	1,960	228	980	Extension for reply within fifth month	
119	320	219	160	Notice of Appeal	
120	320	220	160	Filing a brief in support of an appeal	
121	280	221	140	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,280	241	640	Petition to revive - unintentional	
142	1,280	242	640	Utility issue fee (or reissue)	
143	460	243	230	Design issue fee	
144	620	244	310	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Processing fee under 37 CFR 1.17(q)	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$)**110.00**

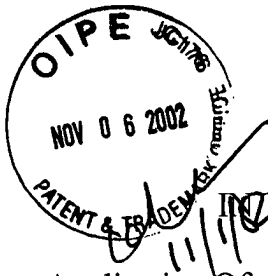
## SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	James F. Boyle	Registration No. (Attorney/Agent)	33,653	Telephone	414-225-9755
Signature	<i>JF Boyle</i>			Date	11-1-02

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#11/C  
Amended  
J. McMillon  
11/12/02  
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TECHNOLOGY CENTER 2800

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Of: )  
)  
KIYOTAKA TSUKADA ET AL )  
Serial No.: 09/720,953 )  
Filed: February 13, 2001 )  
Group Art Unit: 2827 )  
Examiner: J. Norris )  
PRINTED CIRCUIT BOARD )  
AND METHOD OF )  
MANUFACTURING THE SAME)

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: ASSISTANT COMMISSIONER FOR PATENTS, Washington, D.C. 20231, this 1<sup>st</sup> day of November, 2002.

Robyn O'Neill 11/1/02  
Robyn O'Neill Date

AMENDMENT

11/13/2002 JMC/MILLA 00000005 501170 09720953  
01 FC:1201 11/13/02  
COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

Sir:  
In response to the Office Action mailed July 5, 2002, a one-month extension of time being hereby requested with fee attached, please amend the above-identified application as follows:

In the Claims

Please cancel claims 1, 2, 4 and 10, and amend claims 3, 5, 9 and 11 as follows.

3. (Twice Amended) A method for manufacturing a printed circuit board comprising the steps of:

coating a lower surface and an upper surface of an insulative substrate respectively with a lower surface metal foil and an upper surface metal foil, the thickness of which is less